GOVERNMENT OF INDIA
POWER
LOK SABHA

UNSTARRED QUESTION NO:4859
ANSWERED ON:19.12.2002
GRID DISTURBANCE
DAGGUBATI RAMANAIDU;KINJARAPU YERRANNAIDU

Will the Minister of POWER be pleased to state:

(a) whether a three member committee was appointed by the Union Government to conduct a comprehensive enquiry to ascertain the causes of grid disturbance and suggest remedial measures to avoid recurrence;

(b) if so, the details thereof and the salient feature of the report submitted by them;

(c) the steps taken by Government to implement the recommendations of the committee;

(d) whether the Government of Andhra Pradesh has made any request for preventing grid disturbances in the State; and

(e) if so, the details thereof and the measures taken/proposed to be taken thereon?

Answer

THE MINISTER OF STATE IN THE MINISTRY OF POWER (SHRIMATI JAYAWANTI MEHTA)

(a) & (b) : Yes sir. Three-member committees were appointed to conduct enquiry to ascertain the causes of grid disturbances and suggest remedial measures to avoid recurrence for the grid disturbances in the Southern Grid on 11.09.2001 and on 23.1.2002.

The Committees made a number of recommendations. The major ones were (1) Regulation of frequency, (2) Implementation of notified power cuts to contain demand, (3) Ensuring effectiveness of under-frequency load shedding scheme, (4) Provision of df/dt (rate of change of frequency) relays, (5) Improvement of voltage profile, (6) Renovation & Modernisation of old Karnataka transmission system including protection system, (7) Provision of Disturbance Recorders and Event loggers atall important 220 kV sub-stations, (8) Review of black start procedures, (9) Training of load dispatch personnel and system operators, etc.

(c) : CEA has sent the recommendations to all the States in the SouthernRegion for implementation. CEA/SREB are monitoring implementation of the recommendations of both the Committees.

(d) & (e) : Government of Andhra Pradesh requested in November, 2001 that CEA and Power Grid may be asked to scrutinize a three tier defense mechanism proposed by APTRANSCO to ensure that important Thermal Stations in A.P & Karnataka areislanded to avoid possible grid collapses. The three-tier mechanism consisted of:

(i) Operating frequency not less than 48.0 Hz.

(ii) Three-stage automatic under-frequency relay operation.

(iii) Islanding scheme encompassing A.P system along with NTPC`sRamagundam thermal power station and Karnataka`s Raichur thermal station plus matching load of Karnataka.

The proposal was examined in consultation with CEA, Power Grid andNTPC and Government of A.P was informed that the Southern Regional Grid was operating at a very low security level with extremely low frequency and low voltage thus operating on `razor`s edge` in view of wide mismatch between generation and demand. If under frequency load shedding schemes at frequency settings, as recommended by the Committee which enquired into the Grid Disturbance of 11.09.2001, were implemented there would be no need for islanding. Further, the State Governments were also advised to install shunt capacitors on priority as per SREB studies to improve security of the grid, as well as, to carry out proper load management and regulate load within the availability of power in the State so as to maintain the frequency as stipulated by Central Electricity Regulatory Commission.

Availability Based Tariff (ABT) has been implemented in Western andNorthern regions with effect from 1st July, 2002 and 1st December, 2002 respectively. ABT is proposed to be implemented in Southern Region from 1st January, 2003.This will improve the frequency profile of the Southern Regional Grid.